Inland Empire Utilities Agency
Local Groundwater Assistance Grant Program 2012 Project Description
Prado Basin Habitat Sustainability Program

INTRODUCTION

The Inland Empire Utilities Agency (IEUA), along with the local court-appointed agency, the Chino Basin Watermaster (Watermaster) is submitting this application to obtain funding for elements of its groundwater management plan named the Optimum Basin Management Plan (OBMP). This project will help IEUA to continue implementation of critical program elements identified in the OBMP, specifically Program Element 1, which calls for monitoring wells strategically placed throughout the Chino Basin. The OBMP commits the stakeholders to implementing a basin-wide management program to enhance Basin water supplies, protect and enhance water quality, enhance Basin management, and equitably finance the OBMP.

The following sections briefly summarize the information requested in the Guidelines and Proposal Solicitation and Application Package for the Local Groundwater Assistance Grant Program. In addition, the Program EIR and Subsequent EIR for the Chino Basin OBMP and Peace Agreements are not included as a reference document because of its voluminous content. However, complete documents are available on the Watermaster website (see http://www.cbwm.org).

Existing Groundwater Management Program – Optimum Basin Management Program

In February 1998, a court ruling (Chino Basin Municipal Water District v. City of Chino, et al., San Bernardino Superior Court Case No. RCV 51010) mandated that the Chino Basin Watermaster complete an Optimum Basin Management Program (OBMP) to address water supply and water quality concerns in the Chino Basin.

When considered together, the OBMP, the Court Order accepting the OBMP and the Peace I and Peace II Agreements for the OBMP represent the adopted "Groundwater Management Plan" for the Chino Basin. The purpose of the OBMP is to ensure a continuing water supply for the long-term beneficial use of all Watermaster parties. The mission statement for the OBMP is as follows:

The purpose of the Optimum Basin Management Program is to develop a groundwater management program that enhances the safe yield and the water quality of the basin, enabling all groundwater users to produce water from the Basin in a cost-effective manner.

The OBMP goals, impediments to the goals, action items to remove the impediments, and implications of the action items are summarized in Table 3-8 of the OBMP Phase I Report (Attachment 3). Table 3-8 includes a column that cross-references the action items listed for each goal with OBMP program elements. The following bullets briefly describe the program elements of the OBMP:

- Program Element 1 – Develop and Implement Comprehensive Monitoring Program

- Program Element 2 – Develop and Implement Comprehensive Recharge Program
- Program Element 3 – Develop and Implement Water Supply Plan for the Impaired Areas of the Basin
- Program Element 4 – Develop and Implement Comprehensive Groundwater Management Plan for Management Zone 1
- Program Element 5 – Develop and Implement Regional Supplemental Water Program
- Program Element 6 – Develop and Implement Cooperative Programs with the Regional Water Quality Control Board, Santa Ana Region (Regional Board) and Other Agencies to Improve Basin Management
- Program Element 7 – Develop and Implement Salt Management Program
- Program Element 8 – Develop and Implement Groundwater Storage Management Program
- Program Element 9 – Develop and Implement Conjunctive-Use Programs

The Chino Basin stakeholders developed the scope of the Program Elements. Each Program Element contains a series of comprehensive actions and plans to implement those actions. The Watermaster is coordinating the implementation of the various Program Elements while the stakeholders are carrying forth the actual implementation.

PROJECT DESCRIPTION

As mitigation for expansion of the Chino Basin Desalting Program (part of the OBMP), per the Peace II Subsequent Environmental Impact Report (SEIR), a Prado Basin Habitat Sustainability Program (PBHSP) and Committee (Committee) was formed and tasked with the development of a Prado Basin Adaptive Management Study, installation of monitoring wells, monthly photo monitoring stations and triennial aerial and vegetative surveys.

The PBHSP is being developed and implemented pursuant to the monitoring and mitigation requirements listed in the SEIR (Biological Resources/Land Use & Planning—Section 4.4-3):

> *The Chino Basin Stakeholders are committed to ensuring that the Peace II Agreement actions will not significantly adversely impact the Prado Basin riparian habitat. This includes the riparian portions of Chino and Mill Creek's between the terminus of hard lined channels and Prado Basin proper.*
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> *The available modeling data in the SEIR indicates that Peace II Agreement implementation will not cause significant adverse effects on the Prado Basin riparian habitat. However, the following contingency measure will be implemented to ensure that the Prado Basin riparian habitat will not incur unforeseeable significant adverse effects, due to implementation of Peace II. IEUA, Watermaster, OCWD and individual stakeholders, that choose to participate, will jointly fund and develop an adaptive management program that will include, but not be limited to:*
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> - *monitoring riparian habitat quality and extent;*

- *investigating and identifying essential factors to long-term sustainability of Prado Basin riparian habitat;*
- *identification of specific parameters that can be monitored to measure potential effects of Peace II Agreement implementation effects on Prado Basin; and*
- *identification of water management options to minimize the Peace II Agreement effects on Prado Basin.*

This adaptive management program will be prepared as a contingency to define available management actions by Prado Basin stakeholders to address unforeseeable significant adverse impacts, as well as to contribute to the long-term sustainability of the Prado Basin riparian habitat.

The above effort will be implemented under the supervision of a newly-formed Prado Basin Habitat Sustainability Committee. This Committee will include representatives from all interested parties and will be convened by the Watermaster and IEUA. Annual reports will be prepared and will include recommendations for ongoing monitoring and any adaptive management actions required to mitigate any measured loss or prospective loss of riparian habitat that may be attributable to the Peace II Agreement. As determined by Watermaster and IEUA, significant adverse impacts to riparian habitat that are attributable to the Peace II Agreement will be mitigated.

The specific tasks that will be performed under this LGA grant are as follows:

- **Perform an Adaptive Management Study;**
- **Construct and install 8 groundwater monitoring wells; and**
- **Perform on-going data collection.**

Adaptive Management Study

The Adaptive Management Study (Study) is intended to support the Chino Basin Desalting Program and overall Hydraulic Control program within Chino Basin. The Study will specifically address potential changes in groundwater levels, due to the Chino Basin Desalting Program, and investigate all other factors that may impact the Prado Basin Habitat. It is anticipated that as a result of this Study a baseline of the following factors will need to be developed and tracked through time:

- Habitat Acreage in Prado Basin (current and change over time)
- Age of Habitat in Prado Basin
- Mix of Flora & Fauna in Prado Basin
- Surface Water Discharges to Prado Basin (storm & wastewater)
- Groundwater Levels
- Evapotranspiration
- Precipitation
- Temperature

- Other

The intent of tracking all these factors is to support the continuance of the Chino Basin Desalting Program, as well as to determine which factor(s) caused the change in habitat, if and when that was to occur. The Study will provide recommendations on how these factors will be tracked and by whom, as well as what actions (if any) will be taken if habitat within the Prado Basin does change.

Construction & Installation of Monitoring Wells

The Chino Basin Watermaster (Watermaster) has determined the appropriate locations for the 8 monitoring wells that will be constructed and installed under this project. Since drawdown of groundwater levels is a predicted result of implementation of the SEIR, a key component of the PBHSP will be a groundwater monitoring program. The attached map shows the locations of the monitoring wells PBHSP. [Note: some of these wells shown on these maps support Hydraulic Control Monitoring Program]

To support the PBHSP, these monitoring wells will (i) characterize current groundwater conditions, (ii) monitor the changes in groundwater levels, (iii) characterize groundwater/surface-water interactions, (iv) characterize the dependency of riparian vegetation on groundwater, and (v) provide criteria to develop potential management options to minimize stress caused by Peace II implementation, if necessary.

Data Collection

Per the cost sharing Bright Line Agreement between IEUA and Watermaster, the Watermaster currently performs and funds groundwater monitoring and data collection within the Chino Basin. Watermaster will perform and fund the ongoing data collection from the monitoring wells constructed and installed under this grant. The data will be reported on an annual basis in an existing annual report titled; Optimum Basin Management Program, *Chino Basin Maximum Benefit Monitoring Program.*

Watermaster will add the additional monitoring data to their existing Chino Basin groundwater model. These new monitoring wells will provide data so that the model can more accurately project the expected groundwater level change over time and provide stakeholders the opportunity to anticipate potential impacts on the Prado Basin.

Aerial Surveys

In 2003, along with being tasked to perform vegetative surveys, the United States Bureau of Reclamation was also tasked to perform a delineation of aerial photographs of the Prado Basin into land cover types. The baseline delineation was performed in 2003 and future delineations will be used to compare any change in acreage of the riparian habitat.

Monthly Photo Station Monitoring

The condition of riparian habitat throughout the Prado Basin will be documented with monthly photos taken at the existing and new photo monitoring stations developed by the Committee to ensure that groundwater extraction programs do no negatively impact the habitat.

Collaboration

This project will maximize the opportunities to collaborate with local stakeholders, regional agencies and other interested parties. The Prado Basin is located in a prime location for multiple party participation and collaboration. It is generally located at the meeting point of three counties (San Bernardino, Riverside and Orange), half a dozen cities, three regional water agencies and countless environmental agencies have strong interest in its survival. Not only is Prado Basin the largest wetland in southern California, providing home to countless animal, fowl, fish and plant species, but provides critical flood protection, water treatment, water conservation and water storage for downstream Orange County.

The project Study and ongoing monitoring well data collection will support the continuance of the Chino Basin Desalting Program, provide benefit to a number of different entities (all with different interests), an opportunity for these entities to meet, evaluate and determine any appropriate adaptive management actions. Under the overarching PBHSP, the project Study results and ongoing data that is collected will be brought to the Committee in order fully evaluate potential changes in water levels that may be impacting the downstream habitat. The Committee will be made up of, but not limited to, the following entities:

- Inland Empire Utilities Agency (IEUA)
- Chino Basin Watermaster
- Orange County Water District (OCWD)
- California Department of Fish and Game (CDFG)
- Fish and Wildlife Service (FWS)
- US Bureau of Reclamation (USBR)
- US Army Corps of Engineers (USACE)
- Santa Ana Watershed Project Authority (SAWPA)
- County Flood Control
- Resource Conservation Districts (RCD)
- Regional Water Quality Control Board (RWQCB)

As mentioned above, the ongoing monitoring well data collection will be performed by Watermaster and reported on an annual basis in an existing annual report titled; Optimum Basin Management Program, *Chino Basin Maximum Benefit Monitoring Program.*